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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/482,162	01/12/2000	Kikuo Kaise	SON-1720	6631

7590

09/11/2002

Ronald P. Kananen, Esq.
Rader, Fishman & Grauer
The Lion Building
1233 20th Street, N.W. Suite 501
Washington, DC 20036

EXAMINER

CHUNG, DAVID Y

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

46

Office Action Summary

Application No.

09/482,162

Applicant(s)

KAISE ET AL.

Examiner

David Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: ***

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-6, 11-13, 15-17, 22 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Bruzzone et al. (U.S. 6,166,797) in further view of Takahashi (U.S. 5,510,916). Bruzzone et al. discloses diffusion barrier layers with microstructured spacing members. Note in figure 3B, the planarization layer 126 formed of the same material as projection spacers 136. Note the electrodes 128 formed in regions between the projection spacers. Bruzzone et al. does not disclose a light blocking layer. Takahashi teaches 3 reasons for providing a light-blocking layer in a liquid crystal device. The first reason is to shield light-sensitive switching devices. See column 7, lines 9 – 16. The second reason is to prevent light-leakage at a boundary of a pixel. And the final reason is to suppress and conceal an orientation abnormality of the liquid crystal occurring at a periphery of the pixel electrode. See abstract. Examiner asserts that the use of black matrices was well known in the art to the point of being conventional. The level of obviousness is analogous to putting rubber tires and a glass windshield on a car. Similarly, including a color filter on a liquid crystal device was a

Art Unit: ***

conventional method of forming a color display. Therefore, it would have been obvious to one of ordinary skill in the art the time of invention to include a light shielding layer in the display of Bruzzzone et al. for the aforementioned reasons. It would have been obvious to one of ordinary skill in the art to include a color filter because they were conventional. The method claims 11-13 and 15-17 do not introduce limitations that constitute a patentable distinction over the device of claims 1, 2 and 4-6.

Claim 7 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Wenz et al. (U.S. 5,268,782). Wenz et al. discloses a micro-ridged polymeric liquid crystal display substrate. See figure 2. Note the projections 56 and electrodes 62. Although not specifically shown, Wenz et al. suggests that top substrate could be microstructured similar to the bottom substrate with projections contacting projections 56 and crossing at right angles. See column 6, lines 27 – 33. For explanation of the black matrix, see previous rejection. Method claim 18 does not introduce limitations that constitute a patentable distinction over the device of claim 7.

Claim 3, 8-10, 14 and 19-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Katagiri et al. (U.S. 4,763,995). See figure 4C. Note the projections 404, electrodes 402, and insulating layer 403. Katagiri et al. suggests making the projections 404 of synthetic resin. See column 11, lines 8 – 21. Katagiri et al. suggests making the insulating film from an inorganic compound. See column 11, lines 29 – 35. For explanation of the black matrix, see previous rejection. The method claims 14 and

Art Unit: ***

19-21 do not introduce limitations that constitute a patentable distinction over the device of claims 3 and 8-10.

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

David Chung
GAU 2871
09/08/02

A handwritten signature in black ink, consisting of a stylized 'K' followed by a horizontal line extending to the right.

Kenneth Parker
Primary Examiner
GAU 2871